

ROYAL CARIDEA, LLC
EXECUTIVE SUMMARY
May 2, 2022



Over 1.65 billion pounds of shrimp were imported to the USA in 2020¹, of which almost all was previously frozen. In the same year, c. 280m lbs. of shrimp were landed in the USA (over 60% from the Gulf)² which implies a total available product of 1.9bn lbs., with 80-90% coming from imports³. Shrimp is the most consumed seafood

in the USA⁴, with consumption of more than 5 pounds per person each year¹. However most American consumers have little to no access to fresh, never frozen, or live shrimp. The same is true in Europe.

America's import needs are met largely by farms in Southeast Asia (Thailand, Indonesia, India, Vietnam) and Latin America, primarily Ecuador¹. All of these countries have high chances of supply chain disruption. Since early 2021, international freight costs from Asia to North America for 20-foot and 40-foot containers increased by as much as 500% -700% due to persistent shortages of frozen food containers⁵. Aside from supply disruption, contamination of imported product is of grave concern. The US Food and Drug Administration (FDA) rejected a five-year high of 72 shipments of antibiotic-contaminated shrimp in 2021, over twice as many shipments as were refused in 2020⁶.

Overall, the trend of shrimp farming is towards more efficient, sustainable, and cleaner production, but significant challenges remain in the small-scale portion of the sector, wherein batches are consolidated, thereby voiding trace-back resulting in health concerns for the American and EU consumers. Concerns remain about shrimp farming's environmental sustainability including the destruction of mangroves; the impact of pollution; incidence of disease; and the depletion of wild shrimp⁷. Social issues, such as the use of slavery in parts of the supply chain, have not been eliminated⁸. **Cleaner and more efficient farming requires capital investments and technical training, which is not universally accessible.**

Demand for shrimp continues to rise fueled by a growing population of consumers, seeking high quality sustainable, traceable protein. Year-over-year, global shrimp production grew at a rate of 4% over the 10 years ending 2020⁹. Consumers "accept" frozen shrimp but are constantly in search of a locally grown fresh product. Wild fisheries cannot meet US domestic demand² for shrimp to say nothing of demand for fresh, never frozen, or live shrimp in America or Europe. **There is a clear opportunity for a market entrant that can produce locally grown, high-quality shrimp in quantity that is available to**

¹ Urner Barry's Reporter, Summer 2021 (https://www.urnerbarry.com/reporter/issues/ReporterV16N3_WEB.pdf)

² NOAA (https://foss.nmfs.noaa.gov/apexfoss/www_flow.accept)

³ Management analysis

⁴ NFI (<https://www.seafoodsource.com/news/foodservice-retail/nfi-releases-new-top-10-list-detailing-the-seafood-species-americans-consume-most>)

⁵ FAO (<https://www.fao.org/in-action/globefish/market-reports/resource-detail/en/c/1460155/>)

⁶ Southern Shrimp Alliance (<https://www.shrimpalliance.com/southern-shrimp-alliance-releases-updated-databases-of-refused-shipments-of-antibiotic-contaminated-shrimp-imports-in-eu-japan-and-u-s-through-2021/>)

⁷ World Wildlife Fund (<https://www.worldwildlife.org/industries/farmed-shrimp>)

⁸ How to be a Conscious Eater (<https://blog.workman.com/shrimp-farming-slavery>)

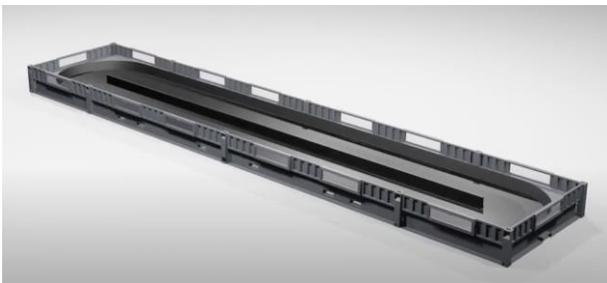
⁹ The Fish Site (<https://thefishsite.com/articles/global-shrimp-production-sees-significant-growth-in-2021-gorjan-nikolik-rabobank>)

the market daily and is sustainably grown using responsible methods. Royal Caridea (Royal) was formed to take advantage of this opportunity.

Employing a proprietary enclosed multi-phasic raceway-based system is the key to this innovation, which is explained in more detail below. Our patented production method¹⁰ is innovative, sustainable, traceable, and, most importantly, will support raising shrimp close to the consumer that is free of antibiotics, pesticides, and human pathogens. Local farming will enable the delivery of live and fresh, never-frozen sustainable shrimp product, thereby meeting underserved high-end markets.

Royal Caridea has secured a well-situated site in Gila Bend, Arizona, and is currently growing high quality shrimp in conventional ponds and a greenhouse, producing 10,000 lbs. of shrimp in 2021. Royal Caridea is **currently raising \$1.5m of equity capital** in order to finance the build of its first patented GEN-2, stacked raceway, production system. The first plant will be comprised of eight “GEN-2 Raceways” stacked as to form an enclosed system, or “GEN-2 Production Unit”, outwardly resembling a shipping container, as shown in the illustration below.

A single “GEN-2 Raceway”



A “GEN-2 Production Unit” (8 GEN-2 Raceways stacked on top of each other)



Specific pathogen Free (SPF) shrimp will be raised in independent, enclosed environmentally controlled raceways, with significantly lower water, land, and feed requirements when compared with conventional shrimp farming. Shrimp will be harvested and maintained under sanitary conditions from time of harvest through-out the logistics of distribution. **The Royal system effectively converts shrimp farming from a batch-oriented process with periodic harvests to a continuous environmentally friendly process, permitting daily harvests year-round. When the customer demands shrimp Royal will deliver with its branded “Arizona Desert Shrimp (www.arizonadesertshrimp.com).**

Taste tests have already confirmed the quality and desirability of Royal-raised shrimp raised in our ponds and greenhouse. Our proprietary production methods have been validated and refined in pilot plant operations. Throughout this time Royal Caridea has assembled an highly experienced team.

We are now ready to embark on a six-year plan to build and operate the first Royal technology based commercial shrimp plants using our patented technology. Once we have delivered the first GEN-2

¹⁰ U.S. Patent #11,206,817 - Multi-phasic integrated super-intensive shrimp production system

Production Unit of 8 raceways (which is expected to yield over 23,000 lbs. of shrimp annually), and demonstrated the efficiency and reliability of its production, we will raise further capital to expand that production, using the GEN-2 Production Unit as a template.

In 2023, Royal will build its first full scale “GEN-2 Module” (¼ the size of a full Plant) which is expected to produce about 325,000 lbs. to market yearly starting in 2024. In 2024 Royal will build its second Module and in 2025 Royal plans to build its third and fourth Modules. Taken together the four modules (a full “GEN-2 Plant”) are expected to produce about 1.3MM lbs./Yr. When production reaches full scale, we will discontinue shrimp production in ponds. Unless another opportunity becomes available Royal plans to return the pond-land to its pre-shrimp farming condition to be used in a manner consistent with “good land practices.”

Royal expects to see its sales grow from over \$140K in 2021 to over \$20MM in 2026 with EBITDA surging to \$12MM in 2026. This will put Royal on the path to further growth – while bringing to market a series of high-quality products and meeting a vast unmet need of demanding and savvy consumers.

The following points further detail our goals, status, and plans.

OUR GOAL	<ul style="list-style-type: none"> • Develop and market a premium branded live and fresh never-frozen farm-raised shrimp with limited frozen product.
SUMMARY PLAN	<ul style="list-style-type: none"> • Launch a premium brand of shrimp grown in Company-owned plants built close to key markets • Initially focus on the US but eventually address the worldwide opportunity • Address existing, growing demand for tasty, healthy, responsibly grown shrimp as well as the unmet market for live and fresh never-frozen shrimp • Begin with a single production-scale Unit, which can be expanded incrementally to a full production Plant (1.3MM lbs. / year) • After this roll out one additional full-scale plant/year (1.3MM Lbs./year) • Take advantage of existing retail and wholesale distribution channels
US MARKET	<ul style="list-style-type: none"> • The US imports over 700,000 metric tons of shrimp/year¹ • Imports account for about 86% of shrimp consumed in the US³ • Annual shrimp consumption is growing at a rate of greater than 4%⁹ • Imports cannot meet market demands for live and fresh, never-frozen shrimp
WORLDWIDE MARKETS	<ul style="list-style-type: none"> • Top Importing Countries of Frozen Common Shrimp & Prawn in 2020: <ul style="list-style-type: none"> • United States 29.7% (\$4.87B) • China 19.0% (\$3.12B) • Japan 8.1% (\$1.32B) • Spain 6.1% (\$0.99B) • France 4.4% (\$0.72B)¹¹

¹¹ <https://www.tridge.com/intelligences/shrimp-prawn/import>
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<p>MARKET DRIVERS (USA)</p>	<ul style="list-style-type: none"> • Consumer demand for healthy protein is shifting from other animal-based proteins to shrimp • Perception of seafood, shrimp, as healthy • Increasing affluence and access to seafood • Growing populations • Cultural and cuisine-oriented demand, such as Asian demand for live shrimp • Consumer interest in how food is produced, i.e., is it sustainable, environmentally friendly, and traceable to its origins
<p>EXISTING INDUSTRY ISSUES</p>	<ul style="list-style-type: none"> • Current production methods are outdated. They facilitate shrimp disease (the #1 threat); restrict best practices by being batch-orientated; and are limited by weather, other environmental interruptions, high shrimp mortality with unpredictable yields, and an inability to serve live and never-frozen markets • Shrimp farming social and environmental impacts can include pollution, poor land use, labor abuse, and questionable business practices
<p>OUR CONCEPT</p>	<ul style="list-style-type: none"> • Our solution addresses all the industry issues and is commercially viable and sustainable • Shrimp grown indoors in a controlled environment designed to optimize shrimp growth and health • Shrimp are raised in a series of raceways, or troughs, housed in customized shipping container-like structures • Raceways and containers promote rapid shrimp development (four months to market) while isolating operations from weather, disease, and other operational issues • Shrimp can be raised and harvested in a predictable manner year-round
<p>THE FARMING PROCESS</p>	<ul style="list-style-type: none"> • Royal Caridea's innovation is Generation 2 (GEN-2) Raceway Farming • Raceway farming was first introduced by Texas A&M University researchers in conjunction with Royal Caridea founders • Post-larval shrimp are introduced into a nursery raceway for their initial growth • Water level and quality, as well as feed, are controlled in each raceway • After one-month shrimp are transferred to a grow-out raceway for their second month (this is the top raceway of the GEN-2 Production Unit) • The shrimp colony doubles in size again in another month and is then subdivided between two additional raceways (raceways 2 and 3) • After a third month, the subdividing process is repeated, with the shrimp from the 2 raceways now split into 5 raceways (raceways 4, 5, 6, 7 and 8) • At the end of the fourth month, 16 to 26-gram shrimp are ready for market • Each time a shrimp colony is transferred to a new set of raceways, the original raceway is "reloaded", enabling continuous production • After the four-month process, product is available almost daily year-round
<p>PRODUCTION FACILITIES</p>	<ul style="list-style-type: none"> • Raceways are built into a container like structure housing eight identical GEN-2 Raceways. • A GEN-2 Raceway may be dedicated as a nursery or a grow-out raceway • A Plant will consist of multiple container-like structures (GEN-2 Production Units), each Unit having 8 GEN-2 Raceways • 48-50 GEN-2 Production Units, accompanied by one nursery unit, will produce 1.3 million pounds annually • Plants include water and waste processing, product packaging, office, and locker room facilities • A plant can be easily located in a warehouse-like facility close to major markets

<p>OUR PRODUCT</p>	<ul style="list-style-type: none"> • We will sell live shrimp (a premium product at \$16-18/lb. ex-farm, head-on); fresh never frozen shrimp (also a premium product at \$10.5-11.50/lb. ex-farm, head-on); and Individually Quick Frozen (IQF) shrimp (priced at \$6.00 -11.00/lb. ex-farm, head-on and head-off) • All our products will be high quality and fully traceable
<p>OUR INNOVATION</p>	<ul style="list-style-type: none"> • Each custom fabricated GEN-2 Production Unit: <ul style="list-style-type: none"> • Isolates each batch of shrimp from the elements and from other batches, eliminating the impact of weather and reducing the chance for disease and cross contamination • Enables rapid, repeatable, economical manufacturing and plant construction • Use of raceways: <ul style="list-style-type: none"> • Reduces the amount of water and feed required • Employs recirculating water enabling purity along with salinity and pH control • Permits automated tracking of shrimp during their grow-out • Maintaining a biomass of <5Kg/m² which helps create optimal shrimp development
<p>OUR INTELLECTUAL PROPERTY</p>	<ul style="list-style-type: none"> • Patent granted Australia and granted USA and pending in numerous other countries for "Multi-Phasic Super-Intensive Shrimp Production System" (Gen 2) • Cover our "plug and play", modular approach to shrimp production • Patents assigned to Company
<p>MARKET ACCESS / CHANNELS</p>	<ul style="list-style-type: none"> • There are many potential channels to market including: <ul style="list-style-type: none"> ▪ Company-owned retail ▪ Online sales ▪ Food wholesalers ▪ Grocery chains ▪ Restaurant and hospitality ▪ Institutional food Services
<p>GO TO MARKET APPROACH</p>	<ul style="list-style-type: none"> • Our first GEN-2 Production Unit of 8 GEN-2 Raceways will be available early 2023 Our initial sales channel will be working with food distributors as well as directly with some local stores in the Phoenix, AZ area • Subsequent Years As additional Modules and other plants come online, other distribution channels will be engaged as listed above
<p>COMPETITION</p>	<ul style="list-style-type: none"> • Indirectly, we will compete with alternative protein sources • Our primary competitors are shipping live shrimp from Mexico in small volumes • At this time, we believe the supply of "fresh never frozen shrimp" in the USA is minimal • A small number of companies are already growing shrimp in the USA in a controlled environment: Home Grown (FL), Sun Shrimp (FL), Natural Shrimp (TX) and Tru Shrimp (MN) • Our secondary direct competition will be foreign shrimp farmers exporting to the USA
<p>COMPETITIVE ADVANTAGES PRODUCT</p>	<ul style="list-style-type: none"> • Compared to imported shrimp, our advantages include: <ul style="list-style-type: none"> ▪ Better taste, texture, and appearance ▪ Healthy, human pathogen-free ▪ Ability to serve live and fresh, never-frozen markets ▪ Year-round availability ▪ Strong product margins ▪ Consistent, predictable shrimp production in 16 and 26-gram sizes

COMPETITIVE ADVANTAGES TECHNOLOGY	<ul style="list-style-type: none"> • Our product advantages stem directly from our superior technology: <ul style="list-style-type: none"> ▪ Minimum land and water use ▪ No use of antibiotics ▪ Recirculating, conditioned water ▪ Continuous production ▪ Plug and play architecture ▪ Built at market in warehouse space
CURRENT STATUS	<ul style="list-style-type: none"> • Stage 1 completed, ready for commercialization <ul style="list-style-type: none"> ▪ Trial runs & taste test complete ▪ Buyer interest tested ▪ Plant designed ▪ Key vendors identified ▪ Patents filed in more than 10 countries ▪ Team assembled
ROADMAP AND KEY MILESTONES	<ul style="list-style-type: none"> • We are now raising \$1.5MM to initiate Stage 2 • Stage 2 – 2022 build a GEN-2 Production Unit of 8 x GEN-2 Raceways 27,000 lbs./yr. Begin wholesale and retail sales in first quarter 2023 Hire additional management • Stage 3 -- 2023 Build and operate first GEN-2 Module (which is made of 12 x GEN-2 Production Units and represents 1/4 of a full GEN-2 Plant producing 1.3MM lb. per year) Sales from Module 1 will start early 2024 2024 Build and operate Module 2 Sales from Module 2 start early 2025 2025 Build and operate Module 3 and 4 (when at capacity producing about 1.3MM lbs./yr. (Full Plant)) Broaden distribution channels beyond retail • Stage 4 -- Ongoing operations -- Build one full GEN-2 Plant per year Cash flow and net income positive in 2024 Broaden distribution including testing foreign markets
START-UP TEAM	<ul style="list-style-type: none"> • Maurice Kemp, PhD – CEO Co-inventor of GEN-2 Raceway technology Participant in development and testing of earlier Gen 1 technology • Michael Cunha – CFO Finance and extensive company operations including manufacturing Experience leading investor-owned companies and working with boards of directors • Anthony Brand -- VP Engineering Co-inventor of GEN-2 Raceway technology Hands-on aquaculture experience with systems design, controls, and automation background • Craig Collins -- Operations Manager 30+ years of shrimp farming experience Launched and successfully ran retail shrimp business

<p>KEY FINANCIAL AND PRODUCTION MILESTONES</p>	<ul style="list-style-type: none"> • 2020 and 2021 Secured a \$2.7MM USDA backed loan Farm reconstituted including building processing and storage facilities Revenue 2021 was \$140K Shrimp lbs. sold estimated 10,000. • 2022 First full year of pond production and build and operate first GEN-2 Production Unit • 2023 build and operate Module 1 Module 1 sales starting in Q1 2024 Revenue 2023 expected to be \$1.2MM Shrimp lbs. sold estimated 120,000. • 2024 build and operate Module 2, Reach self-sustaining mode Positive cash flow and EBITDA Revenue 2024 expected to be \$5.4MM Shrimp lbs. sold 374,000. • 2025 Build and operate Modules 3 and 4 - continued profitable operations Production capacity 1.3MM lbs. /yr. Revenue 2025 expected to be \$10.2MM Shrimp lbs. sold estimated 698,000. • 2026 and thereafter build and operate 1 Full 1.3MM lb./yr. GEN-2 Plant Revenue 2026 expected to be \$19MM Shrimp lbs. sold estimated 1,346,000.
<p>FUNDING NEEDS AND USE OF FUNDS</p>	<ul style="list-style-type: none"> • Stage 1 – Build and operate the first GEN-2 Production Unit of 8 x GEN-2 Raceways – One-year duration Need \$1.5M (Series A) Primary uses are Plant 1 construction (60%) and working capital (40%) and Contingency included. • Stage 2 – Scale Up – Two-year duration to build and operate first GEN-2 Module Need \$4MM in equity (Series B) and \$4MM in institutional financing to complete the first GEN-2 Module • Stage 3 – ‘Plant One’ Completion Funds will come primarily from cash flow from existing business which will also support bank financing Primary use is to build and operate Modules 2, 3, and 4 (thereby completing the first full GEN-2 Plant) with ongoing working capital • Financially self-sustaining thereafter
<p>SERIES A FUNDING</p>	<ul style="list-style-type: none"> • Seeking \$1.5million • \$1.00 / unit • • Offering Series A Preferred Units • 15.68% of Company
<p>LIQUIDITY</p>	<ul style="list-style-type: none"> • Continue to grow the company. Investors will generate annual distributions • Sale the company, probably to another seafood producer, in 5–7-year time frame
<p>CONTACT</p>	<ul style="list-style-type: none"> • Maurice Kemp, Ph.D. Email • MKemp@royalcaridea.com • Phone 602.339.8995